

E1 working surfaces mounted internally of said cylinder [on] and
engaging said component and having the function of transmitting
load imposed by the working surfaces, said cylinder assembly
having means circumferentially mounted thereon within said
housing to enable said assembly to rotate while said component
reciprocates within said assembly.

Please add claims 60-110:

-- 60. The device of claim 55, wherein said chamber
assembly is made of ceramic material. --

E2 -- 61. A device for the working of fluids comprising
at least one cylinder assembly and a component reciprocable
therein, said component having two longitudinal extremities and
at least one circumferential projection, said cylinder assembly
having at least one internal circumferential depression in which
a projection is positioned to reciprocate, said projection and
depression forming a pair of torroidal fluid working chambers of
cyclically variable capacity, said component having at least one
internal passage for movement of fluids to or from said working
chambers. --

-- 62. The device of claim 61, including a housing in
which said cylinder assembly is mounted. --

-- 63. The device of claim 62, wherein said housing is
partially composed of thermally insulating material. --

-- 64. The device of claim 62, including means to
mount said cylinder assembly in said housing to enable said
cylinder assembly to rotate while said component is reciprocating
in said cylinder assembly. --

-- 65. The device of claim 61, including means between said assembly and said component so as to cause said component to rotate relative to said assembly while reciprocating in said assembly. --

-- 66. The device of claim 61, including a crankshaft to which an end of said extension is linked. --

-- 67. The device of claim 61, including a device known as a scotch yoke to which an end of said extension is linked. --

-- 68. The device of claim 61, wherein said component is substantially of ceramic material. --

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-- 69. The device of claim 61, wherein said assembly is substantially of ceramic material. --

-- 70. The device of claim 61, wherein said assembly comprises at least one pair of substantially identical components arranged in mirror image relative to one another. --

-- 71. The device of claim 70, wherein said pair of components define a port therebetween for passage of fluid to or from said working chambers. --

-- 72. The device of claim 71, wherein said port is interconnected to said two working chambers. --

-- 73. the device of claim 61, including at least one fastener, said cylinder assembly being comprised of a multiplicity of elements assembled by means of said at least one fastener loaded in tension. --

-- 74. The device of claim 73, wherein said cylinder assembly is assembled around said component. --

-- 75. The device of claim 61, including means defining a volume for passage of fluids to or from said working chambers, said means surrounding at least a portion of said cylinder assembly. --

-- 76. The device of claim 61, including at least one fastener, said reciprocable component comprising a multiplicity of elements, said elements being held in an assembled condition by said at least one fastener loaded in tension. --

-- 77. The device of claim 75, in the form of an internal combustion engine, said working chambers being combustion chambers. --

E2 -- 78. The device of claim 61, wherein said device is part of an internal combustion engine and said working chambers are combustion chambers. --

-- 79. The device of claim 61, wherein said torroidal working chambers have substantial equal capacity. --

-- 80. The device of claim 78, including fluid delivery means mounted in said reciprocable component. --

-- 81. The device of claim 61, including filamentary material contained in said internal passage. --

-- 82. The device of claim 75, including filamentary material contained in said volume. --

-- 83. The device of claim 61, including a rotatable shaft and a load transfer mechanism, said component being linked to said rotatable shaft by said load transfer mechanism. --

-- 84. The device of claim 83, wherein said mechanism comprises a hollow shaft with interior splines slidable on a shaft with external splines. --

-- 85. The device of claim 83, wherein said mechanism comprises a bellows device. --

-- 86. The device of claim 83, wherein said mechanism includes at least one hinged element. --

-- 87. The device of claim 83, wherein said mechanism includes at least one pair of substantially parallel flanges separated by at least one roller, the flanges in operation moving laterally relative to one another. --

-- 88. The device of claim 61, including a rotatable shaft and a linking mechanism, said linking mechanism comprising a pump. --

-- 89. The device of claim 78, wherein said part of said internal combustion engine comprises one stage of a compound engine. --

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-- 90. The device of claim 89, including a turbine stage to form a compound engine. --

-- 91. The device of claim 89, including a steam engine stage to form a compound engine. --

-- 92. The device of claim 89, including a Stirling engine stage to form a compound engine. --

-- 93. The device of claim 61, in the form of an internal combustion engine. --

-- 94. A compound engine comprising the internal combustion engine of claim 93. --

-- 95. A compound engine comprising the internal combustion engine of claim 93 and a turbine. --

-- 96. A compound engine comprising the internal combustion engine of claim 93 and a steam engine. --

-- 97. A compound engine comprising the internal combustion engine of claim 93 and a Stirling engine. --

-- 98. The device of claim 61, wherein said component has at least one surface defining depressions wholly fillable by fluids worked by said device. --

-- 99. The device of claim 61, wherein said cylinder assembly has at least one surface defining depressions wholly fillable by fluids worked by said device. --

-- 100. The device of claim 65, wherein said means comprise a guide and an endless track, said guide movable in said endless track, said track having a multiple wave form configuration. --

-- 101. The device of claim 100, wherein said guide is disengagable from said track. --

62 -- 102. The device of claim 81, wherein said filamentary material includes material having catalytic effect to hasten chemical reaction in said working fluid. --

-- 103. The device of claim 82, wherein said filamentary material includes material having catalytic effect to hasten chemical reaction in said working fluid. --

-- 104. The device of claim 65, wherein said means comprise said component and said cylinder assembly define complimentary surfaces at least partly of endless wave-like configurations. --

-- 105. The device of claim 61, including a rotatable shaft and a linking mechanism, said linking mechanism comprising a compressor. --

-- 106. A device for the working of fluids comprising at least one cylinder assembly and a component reciprocating therein, said component having at least one circumferential projection reciprocating in a circumferential depression in said

assembly to form at least one pair of torroidal fluid working chambers of cyclically variable capacity, said component having at least one internal volume for passage of fluids to said working chambers, and at least one structural extension, the end of said extension in normal operation transferring loads associated with said working chambers. --

E2 -- 107. A device for the working of fluids, said device having a cylinder assembly comprising a cylinder with internal circumferential depressions, a component with external circumferential projections and at least one structural member, said external circumferential projections reciprocating in said internal circumferential depressions and both having working surfaces defining at least one pair of torroidal fluid working chambers which in operation have cyclically variable volumes, said at least one structural member having working surfaces mounted internally of said cylinder on said component and having the function of transmitting load imposed by the working surfaces. --

-- 108. The device of claim 61, wherein at least one of said extremities in normal operation transfers loads associated with said working chambers. --

-- 109. The device of claim 61, wherein said component comprises a multiplicity of elements, at least one of which is of integral ceramic material. --

-- 110. The device of claim 61, including a tensile fastener and wherein said cylinder assembly comprises a multiplicity of elements at least one of which is made of integral ceramic material, said elements being held in an assembled condition by said fastener. --
